



Health Care for the Homeless

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Bibliography #1

Health Issues for Homeless Children

January 2003

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Under contract to the Health Resources and Services Administration, Bureau of Primary Health Care

Centers for Medicare and Medicaid Services. **Enrolling and retaining low-income families and children in health care coverage.** Centers for Medicare and Medicaid Services, 2002.

This guide is intended to help states ensure that low-income families and individuals are properly considered for Medicaid, and to improve Medicaid access and retention for all applicants and beneficiaries. Medicaid coverage provides critical health care to families who are entering the workplace, as well as to families who work at jobs that do not offer affordable health care. Medicaid is no longer an adjunct to cash assistance; it is a health care program offering coverage, largely through the purchase of managed care, to a broad group of low-income children and an expanding group of low-income families. Together, Federal, State, and local Medicaid agencies must adapt to these changes, overcome public misperceptions about Medicaid, and, in some cases, reorient their way of doing business in order to promote participation among eligible children and families (authors).

Karr, C. **Homeless children: What every health care provider should know.** Health Care for the Homeless Clinicians' Network, 2002.

This is an online resource for health care providers that offers information on how to treat children who may be at risk or who are currently experiencing homelessness. It includes information on recognizing homelessness and the risks of homelessness in families with children, understanding the specific health problems of children experiencing homelessness, modifying health care plans and prevention strategies to account for the conditions of homelessness, and finding resources for homeless patients and their families (authors). AVAILABLE FROM: Health Care for the Homeless Clinicians' Network, P.O Box 60427, Nashville, TN 37206, www.nhchc.org.

Weinreb L, Wehler C, Perloff J, Scott R, Hosmer D, Sagor L, Gundersen C. **Hunger: Its impact on children's health and mental health.** Pediatrics 110(4), October 2002.

OBJECTIVE: This study examines the independent contribution of child hunger on children's physical and mental health and academic functioning, when controlling for a range of environmental, maternal, and child factors that have also been associated with poor outcomes among children. **METHODS:** Comprehensive demographic, psychosocial, and health data were collected in Worcester, Massachusetts, from homeless and low-income housed mothers and their children (180 preschool-aged children and 228 school-aged children). **RESULTS:** The average family size for both preschoolers and school-aged children was 3; about one third of both groups were white and 40% Puerto Rican. The average income of families was approximately \$11 000. Among the school-aged children, 50% experienced moderate child hunger and 16% severe child hunger. Compared with those with no hunger, school-aged children with severe hunger were more likely to be homeless (56% vs 29%), have low birth weights (23% vs 6%), and have more stressful life events when compared with those with no hunger. School-aged children with severe hunger scores had parent-reported anxiety scores that were more than double the scores for children with no hunger and significantly higher chronic illness counts (3.4 vs 1.8) and internalizing behavior problems when compared with children with no hunger. There was no relationship between hunger and academic achievement. Among preschool-aged children 51% experienced moderate child hunger and 8% severe child hunger. For preschoolers, compared with children with no hunger, severe hunger was associated with homelessness (75% vs 48%), more traumatic life events (8.5 vs 6), low birth weight (23% vs 6%), and higher levels of chronic illness and internalizing behavior problems. Mothers of both preschoolers and school-aged children who reported severe hunger were

more likely to have a lifetime diagnosis of posttraumatic stress disorder. For school-aged children, severe hunger was a significant predictor of chronic illness. For preschoolers, moderate hunger was a significant predictor of health conditions. For both preschoolers and school-aged children, severe child hunger was associated with higher levels of internalizing behavior problems. Severe child hunger was also associated with higher reported anxiety/depression among school-aged children. **CONCLUSION:** This study highlights the independent relationship between severe child hunger and adverse physical health and mental health outcomes among low-income children. Study findings underscore the importance of clinical recognition of child hunger and its outcomes, allowing for preventive interventions and efforts to increase access to food-related resources.

2001

Alaimo K, Olson CM, Frongillo EA, Briefel RR. **Food insufficiency, family income, and health in US preschool and school-aged children.** American Journal of Public Health 91(5): 781-786, May 2001.

OBJECTIVE: This study investigated associations between family income, food insufficiency, and health among US preschool and school-aged children. **METHODS:** Data from the third National Health and Nutrition Examination Survey were analyzed. Children were classified as food insufficient if the family respondent reported that the family sometimes or often did not get enough food to eat. **RESULTS:** Low-income children had a higher prevalence of poor/fair health status and iron deficiency than high-income children. After confounding factors, including poverty status, had been controlled, food-insufficient children were significantly more likely to have poorer health status and to experience more frequent stomachaches and headaches than food-sufficient children; preschool food-insufficient children had more frequent colds. **CONCLUSIONS:** Food insufficiency and low family income are health concerns for US preschool and school-aged children.

Berti LC, Zylbert S, Rolnitzky L. **Comparison of health status of children using a school-based health center for comprehensive care.** J Pediatr Health Care, 15(5):244-50, Sept-Oct 2001.

OBJECTIVE: To compare health problems and medical coverage of homeless and housed children who used a school-based health center (SBHC) for comprehensive care. **METHODS:** Medical charts of homeless children (n=76) and housed children (n=232) seen for comprehensive care at SBHC in New York City during the 1998-99 school year were systematically reviewed and compared. **RESULTS:** Controlled for ethnicity and medical coverage, homeless children were 2.5 times as likely to have health problems and 3 times as likely to have severe health problems as housed children. The most common health problems identified in the homeless population were asthma (33%), vision (13%), mental health (9%), and acute problems (8%). Lack of medical coverage was evident in 58% of homeless children, compared with 15% of housed children. **CONCLUSION:** Study findings identify homeless children as being at increased risk for health problems and lack of medical coverage. These findings support use of an SBHC for comprehensive care by underserved segments of the population and a need for increased vigilance on the part of health care providers caring for homeless children.

Granados, G., Puvvula, J., Berman, N., Dowling, P.T. **Health care for Latino children: Impact of child and parental birthplace on insurance status and access to health services.** American Journal of Public Health 91(11): 1806-1807, 2001

OBJECTIVES: This study sought to assess the impact of child and parental birthplace on insurance status and

access to health care among Latino children in the United States. **METHODS:** A cross-sectional, in-person survey of 376 random households with children aged 1 to 12 years was conducted in a predominantly Latino community. Children's insurance status and access to routine health care were compared among 3 child-parent groups: U.S. born-U.S. born (UU), U.S. born-immigrant (UI), and immigrant-immigrant (II). **RESULTS:** Uninsured rates for the 3 groups of children were 10% (UU), 23% (UI), and 64% (II). Rates for lack of access to routine health care were 5% (UU), 12% (UI), and 32% (II). **CONCLUSION:** Latino children of immigrant parents are more likely to lack insurance and access to routine health care than are Latino children of US-born parents (authors).

Hatton, CD, Kleffel, D, Bennett, S, Gaffrey, EAN. **Homeless women and children's access to health care: A paradox.** *Journal of Community Health Nursing (Special Issue)* 18(1): 25-34, 2001.

Women and children who are homeless and reside in shelters experience many health related problems. This article discusses a study in which the aim was (a) to explore how shelter staffs manage health problems among their residents and assist them in accessing health services; and (b) to identify clinical strategies for community health nurses working with this population. Findings demonstrate a paradox whereby homeless shelter staffs try to gain access to care for their residents through a system that is designed to keep them out. In addition, findings indicate a need for increased community health nursing services in homeless shelters. Strategies for resolving this paradox include providing assessment, policy development, and assurance of health care for women and children who are homeless (authors).

Huang CY, Menke EM. **School-aged homeless sheltered children's stressors and coping behaviors.** *J Pediatr Nurs*, 16(2):102-9, April 2001.

The purpose of this study was to examine the stressors and coping behaviors of school-aged homeless children staying in shelters. A secondary analysis of interview data from 30 children, between the ages of 8-12 years, was used to delineate the stressors and coping behaviors. Homeless, family, self, peer, school, and violent behavior were the stressor categories derived from content analysis. The children expressed more stresses in the homeless, family, and self categories than in the other three categories. The coping behaviors from the content analysis were categorized by using Ryan-Wenger's (1992) coping taxonomy. The majority of the children's coping responses were in the social support, cognitive avoidance and behavioral distraction categories. Nurses should assess each child's stress and coping behaviors when providing care to homeless children, and assist the child in alleviating some stressors by strengthening one's coping behaviors.

Kelly E. **Assessment of dietary intake of preschool children living in a homeless shelter.** *Appl Nurs Res*, 14(3):146-54, Aug. 2001.

Families with young children are the fastest growing group among the homeless population. This study was undertaken by nursing students and faculty to learn more about what homeless preschool children were fed and what they are at a family shelter in the Southwest. Results from the study were shared with the entire shelter staff. Mothers who participated in the study were given information on age-appropriate food preparation and servings. This research reveals the important role nurses can play in documenting and teaching both shelter staff and homeless mothers more about children's dietary needs and the long-term health outcomes of a proper diet.

Kenney, G. and Haley, J. **Why aren't more uninsured children enrolled in Medicaid or SCHIP?** The Urban Institute, 2100 M Street, N.W., Washington, D.C. 20037.

This study from the Urban Institute's Assessing the New Federalism project found that knowledge gaps continue to be substantial barriers to enrollment in SCHIP and Medicaid. The study used data from the 1999 National Survey of America's Families, a nationally representative survey that over-samples the low-income population and provides state-specific data on 13 states, to examine issues surrounding Medicaid or SCHIP enrollment. The study found that knowledge gaps constituted a primary barrier to enrollment for one-third of low-income uninsured children, and that administrative hassles were a primary barrier to enrollment for another 10 percent of low-income uninsured children. However, 22 percent of low-income uninsured children had parents who indicated that public health insurance coverage was not wanted or needed, and another 18 percent who were uninsured at the time of the survey had been enrolled in Medicaid/SCHIP at some point during the past year.

Sherman, P.A., M.D. **Domestic violence and children: A Children's Health Fund report.** New York, NY: The Children's Hospital at Montefiore, Division of Community Pediatrics, 2001.

In this report the author discusses domestic violence as a pediatric issue. Health care providers at NYCHP have seen manifestations of exposure to domestic violence as early as infancy. Dr. Sherman indicates that very few pediatricians have received training in the identification and treatment of children who have witnessed domestic violence. He discusses the importance of pediatricians screening mothers for exposure to domestic violence and the importance of establishing screening and evaluation protocols so health care providers can immediately respond to a mother who disclosed a history of domestic violence. The New York Children's Health Project recently developed and implemented a model program which provides health care for women and children residing in several domestic violence shelters and safe houses in NYC. The Children's Health Fund believes that the cycle of domestic violence can be halted by: identifying children who live in a household where domestic violence occurs; creating a safe environment; making appropriate referrals to subspecialty care; and enhancing the strengths of a mother and her children. A list of recommendations are provided to support these goals.

Waldron AM, Tobin G, McQuaid P. **Mental health status of homeless children and their families.** Irish J of Psychol Med, 18(1):11-15, Mar 2001.

Examined the mental health status of 31 homeless 2-15 year olds and their families and compared the findings with those of P. Vostanis et al (1997). 14 mothers and 2 fathers (aged 20-35 years) completed the General Health Questionnaire (GHQ). The mothers completed the Child Behavior Checklist (CBCL) and the Parenting Stress Index (PSI). Of the mothers, 28% (4/14) indicated the presence of psychiatric 'caseness.' On the CBCL, more than a third of the children (12/31) had a Total Problem Score above the 'clinical' threshold, indicating mental health problems that were severe enough for treatment referral. Of the children, 45% had externalizing problems in the 'deviant range', while 29% of the children had internalizing problems in the 'clinical' range. When CBCL scores were examined within each family, 78% had at least one child with a CBCL dimension of clinical significance. Of the mothers, 70% had PSI scores in the critical range. They reported feeling incompetent in their parenting role, being dominated by their children's needs and feeling socially isolated from their relatives and peers. Their scores also indicated poor self-esteem and significant depressive symptoms. The peak score was the lack of emotional and active support from the other parent.

2000

American Public Health Association. **American Journal of Public Health.** American Journal of Public Health 90(12): 2000.

This entire issue deals with the issues of health care systems and health insurance mostly in relationship to children with special health care needs.

Craft-Rosenbeg, M., Powell, S.R., Culp, K. **Health status and resources of rural homeless women and children.** Western Journal of Nursing Research 22(8): 863-878, 2000.

The purpose of this research is to describe the health status and health resources for women and children who are homeless in a Midwestern rural community. A group of 31 rural homeless women in a shelter participated in the study by answering questions on the Rural Homeless Interview developed by the investigators. The findings revealed higher than expected rates of illness, accidents, and adverse life events, with the incidence of substance abuse and mental illness being comparable to data from other homeless populations. The data on children were omitted by lack of knowledge on the part of their mothers. Some mothers reported that their children were in foster care, had been adopted, or were being cared of by others. The inability to access health and dental care was reported by half of the participants (authors).

Lindsey EW, Kurtz PD, Jarvis S, Williams NR, Nackerud L. **How runaway and homeless youth navigate troubled waters: Personal strengths and resources.** Child Adol Soc Work J, 17(2): 115-40, Apr 2000.

Little attention has been paid to how runaway or homeless adolescents are able to make successful transitions into adulthood. This article reports on partial findings from an exploratory study of the research question, "How do former runaway and homeless adolescents navigate the troubled waters of leaving home, living in high-risk environments, and engaging in dangerous behaviors, to make successful developmental transitions into young adulthood?" This qualitative study involved interviews with 12 former runaway or homeless youth (aged 18-25 yrs). Findings related to the personal strengths and resources that enabled youth to make successful transitions: learning new attitudes and behaviors, personal attributes, and spirituality. Recommendations for program development and intervention with homeless or at-risk youth are discussed.

Ryan, DK, Kilmer, RP, Cauce, AM, Watanabe, H, Hoyt, DR. **Psychological consequences of child maltreatment in homeless adolescents: Untangling the unique effects of maltreatment and family environment.** Child Ab Negl, 24(3):333-52, Mar 2000.

This study examined the differential effects of various forms of abuse, as well as their combined effects. The study also sought to separate the factors uniquely associated with abuse from those associated with the more general problems present in an abusive family environment. Data were collected from 329 homeless adolescents. Significant differences were found across groups for rates of assault, rape, depression/dysthymia, and attempted suicide. Multivariate analyses indicated significant differences in severity of internalizing problems and cognitive problems. Without exception, the group with histories of both physical and sexual abuse exhibited the most severe symptomatology and was at greatest risk for revictimization. Abuse histories were predictive of internalizing problems while family characteristics were more predictive of externalizing problems. The findings indicate that both abuse type and family characteristics contribute to the development

of symptomatology. Future prospective and longitudinal studies are needed to clarify the sequelae of abuse, as well as the possible cause and effect relations between abuse, family characteristics, and psychological outcome.

Whitbeck B, Hoyt DR, Bao W. **Depressive symptoms and co-occurring depressive symptoms, substance abuse, and conduct problems among runaway and homeless adolescents.** *Child Dev*, 71(3):721-32, May-Jun 2000.

Examined factors that contribute to depressive symptoms and to co-occurring depression, substance abuse, and conduct problems among 602 runaway and homeless adolescents. The respondents were interviewed in shelters, drop-in centers, and directly on the streets in 4 Mid-Western states (Missouri, Iowa, Nebraska, and Kansas). Results indicate that although family-of-origin factors contribute to depressive symptoms and comorbidity among runaway and homeless adolescents, experiences and behaviors when the adolescents are on their own also have powerful effects. The authors discuss the findings from a life-course perspective focusing on mechanisms through which street experiences accentuate or amplify already high levels of psychological distress and behavioral problems among this population of young people.

1999

Buckner JC, Bassuk EL, Weinreb LF, Brooks MG. **Homelessness and its relation to the mental health and behavior of low-income school-age children.** *Develop Psych*, 35(1):246-57, 1999.

This article examined the relationship between housing status and depression, anxiety, and problem behaviors among children age six and older who were members of low-income, single parent, female-headed families. Participants were 80 homeless and 148 never homeless children living in Worcester, Ma. Children in both groups had recently been exposed to various severe stressors. Mother reported problems behaviors were above normative for both homeless and poor housed youths but self-reported depression and anxiety were not. Housing status was associated with internalizing problem behaviors but not with externalizing behaviors. Among homeless youths, internalizing behavior problems showed a positive but curvilinear relationship with number of weeks having lived in a shelter. Housing status was not associated with self-reported depression and anxiety. The findings are discussed in terms of their implications for programmatic intervention and in light of recent welfare reform.

Crook, WP. **The new sisters of the road: Homeless women and their children.** *J Fam Soc Work*, 3(4):49-64, 1999.

Examines the growing social problem of homeless women & their children in the US, providing a historical perspective, offering reasons for the increased incidence of family homelessness, discussing the negative effects of homelessness & considering programmatic responses. Recommendations are made for effective program services & policy reforms, & family social workers are urged to adopt a policy advocacy orientation. There is a need for further research to separate causes from effects when studying homeless women & children; also, researchers need to attend to the significance of gender for the social problem of family homelessness.

Lindsay-Blue D. **A comparative study of reported parenting practices in abused and non-abused shelter populations of women.** Dissertation (DAI), California School of Professional Psychology, Los Angeles, CA, 1999.

This study recruited 38 abused and 28 non abused women who resided at domestic violence and homeless shelters, respectively; married or cohabiting in an intimate relationship during the past six months, and had at least one child of school age attending school. The women were grouped as abused or non-abused; their parenting practices were measured across eight parenting constructs. Satisfaction with social and financial supports were measured through questions on a demographic questionnaire. Results yielded no significant mean differences in reported parenting practices between the groups of abused and non-abused women in shelter residences. However, racial differences were found between Caucasian, African-Americans, and Native Americans in their reported empathetic responses toward their children. Correlational analysis found relationships across the groups of women in their satisfaction with emotional supports and consistency in the use of disciplinary practices. Overall, this research seemed to support the assumption that the determinants of parenting in a domestic violence population are as similar or varied as those in non-abused shelter populations. These finds may have implications for future models of intervention with abused mothers and their children.

San Agustin M, Cohen P, Rubin D, Cleary SD, Erickson CJ, Allen JK. **The Montefiore Community Childrens Project: A controlled study of cognitive and emotional problems of homeless mothers and children.** J Urban Health, 76(1):39-50, March 1999.

OBJECTIVES: This study compares the prevalence of emotional, academic, and cognitive impairment in children and mothers living in the community with those living in shelters for the homeless. **METHOD:** In New York City, 82 homeless mothers and their 102 children, aged 6 to 11, recruited from family shelters were compared to 115 non-homeless mothers with 176 children recruited from classmates of the homeless children. Assessments included standardized tests and interviews. **RESULTS:** Mothers in shelters for the homeless showed higher rates of depression and anxiety than did non-homeless mothers. Boys in homeless shelters showed higher rates of serious emotional and behavioral problems. Both boys and girls in homeless shelters showed more academic problems than did non-homeless children. **CONCLUSION:** Study findings suggest a need among homeless children for special attention to academic problems that are not attributable to intellectual deficits in either children or their mothers. Although high rates of emotional and behavioral problems characterized poor children living in both settings, boys in shelters for the homeless may be particularly in need of professional attention.

Zima BT, Bussing R, Bystritsky M, Widawski MH, Belin TR, Benjamin B. **Psychosocial stressors among sheltered homeless children: Relationship to behavior problems and depressive symptoms.** Amer J Orthopsych, 69(1):127-33, 1999.

This article assessed the level of exposure to severe psychological stressors among homeless children in emergency family shelters in Los Angeles County. The relationship between such exposure and child mental health problems was then investigated, along with the effects of adult family social support. Results showed that 48% of the children studied had been exposed to violence, and being a victim of violence was independently related to child behavior problems. Evidence was weak that social support from within the family moderated the impact of severe stressors on mental health problems

Zlotnick C, Robertson MJ, Wright MA. **The impact of childhood foster care and other out-of-home placement on homeless women and their children.** Child Ab Negl, 23(11):1057-68, Nov 1999.

This study evaluated the effect of childhood foster care and other out-of-home placement on homeless women and their children. Data were drawn from structured interviews with a countywide probability sample of 179 homeless women. Findings reveal that one-third of homeless women reported that they were raised away from their parents and, of those with children below age 18, 61.5% had children who had been in foster care or some other form of out-of-home placement. It was also revealed that the variables that were associated with the children of homeless mothers living in foster care or other out-of-home placements were: mother had experienced sexual abuse as a child, mother ran away from home before the age of 18, child was of school-going age, mother had a current alcohol or drug use disorder, and mother was at least 35 years old. Findings indicate that programs that are developed for family preservation for homeless mothers should supply parenting support as well as permanent housing.

1998

The Better Homes Fund. **Homeless children.** Newton Centre, MA, The Better Homes Fund, 1998.

This document reports on study findings from a six-year research project on family homelessness and poverty in Massachusetts. These findings provide critical insight into the characteristics and needs of homeless children and the impact of homelessness, residential instability, and poverty on children. AVAILABLE FROM: The Better Homes Fund, 181 Wells Ave., Newton Centre, MA 02159 (617) 964-3834.

Bureau of Primary Health Care. **Health care access for homeless children.** Bethesda, MD: Bureau of Primary Health Care, Feb 1998.

This fact sheet provides information surrounding: (1) the health care needs of homeless children, (2) homeless children's access to health care; and (3) what works to get and keep homeless children in health care, including expanding community-based health care and eliminating barriers to care. AVAILABLE FROM: Office of Communications, HRSA, 5600 Fishers Lane, Room 14-45 Rockville, MD 20857. Phone: (301) 443-3376. Fax: (301) 443-1989.

Conrad BS. **Maternal depressive symptoms and homeless children's mental health: Risk and resiliency.** Arch Psych Nurs, 12(1):50-8, 1998.

This study examined the relationship between maternal depressive symptoms and child mental health in a sample of homeless mothers and their preschool children. Thirty homeless mothers with at least one preschool child who were residing in a shelter were surveyed. The rate of depressive symptoms in the mothers was extremely high. However, 70% of the children in this sample had no behavior problems, a rate consistent with homeless children, but low when compared to the general population (94%). The author states that the data suggests mental health services for homeless mothers and their young children are needed. The author also concludes that the adaptation of these young children reflects resiliency to extraordinary stressors and provides a unique opportunity to understand child resilience.

Dudbus P, Buckner J. **A shelter is not a home: Homeless urban mothers and their young children.** Zero to Three:18-23, Aug-Sept 1998.

This article reports on findings from a longitudinal study that was begun in 1992 by The Better Homes Fund and the University of Massachusetts Medical Center at Worcester. It was designed to (1) describe and compare characteristics of homeless and low-income housed women and their children; (2) identify risk and protective factors for family homelessness; (3) describe the natural course and consequences of homelessness and residential instability among low income families; and (4) examine the impact of homelessness and poverty on children. This article describes the design of the Worcester Family Research Project (WFRP), summarizes key findings, and considers the homeless shelter as a care-giving environment. AVAILABLE FROM: National Center for Infants, Toddlers, and Families, 734 15th Street NW, Suite 10000, Washington, DC 20005-1013. Phone: (202) 638-1144.

Garcia Coll C, Buckner JC, Brooks MG, Weinreb LF, Bassuk EL. **The developmental status and adaptive behavior of homeless and low-income housed infants and toddlers.** Am J Public Health, 88(9):1371-4, Sept 1998.

OBJECTIVES: This study describes the development status of 127 homeless and 91 low-income housed infants and toddlers. METHODS: The Bayley Scales of Infant Development and the Vineland Screener were used to gather data. RESULTS: There were no differences between homeless and low-income housed children. However, younger children in both groups performed better than the older children on most summary scores. CONCLUSIONS: Homeless and low-income housed children did not differ in their cognitive and motor skills. However, older children scored lower than younger children on most measures of development status, suggesting that the cumulative effects of poverty may increase with time.

Herth K. **Hope as seen through the eyes of homeless children.** J Adv Nurs, 28(5):1053-62, Nov 1998.

Children now constitute the largest segment of the homeless population. Multiple studies have identified the adverse effects of homelessness on children's health, development, academic success, and behavior. Minimal literature exists that describes homeless children from the perspective of their strengths. The purpose of this study was to investigate the meaning of hope in homeless children and to identify strategies that children use in fostering and maintaining their hope. Using the technique of methodological triangulation (semi-structured interviews and drawings) the investigator collected data on a convenience sample of 60 homeless children (6 to 16 years old) currently residing in homeless shelters. Transcriptions of the audio-taped interviews were analyzed following Colaizzi's method of analysis. Transcript statements were compared with the drawings. Five themes representing hope emerged from the data: connectedness, internal resources, cognitive strategies, energy, and hope objects. School age children drew storybook characters, pre-adolescents drew real life situations, and adolescents drew future plans to represent their hopes. An understanding of hope from the perspective of homeless children could provide a basis upon which to develop interventions that engender hope and to develop programs that build on the hopes that children had already developed.

Kelly E. **Nutrition among homeless children.** Pub Health Rep, 113:287, 1998.

This letter discusses a study of 75 preschool children living with their mothers, conducted in a homeless shelter in Houston, TX. The focus was on assessing the food services provided by the shelter to children. While the shelter served three meals each day, food was not provided outside of mealtimes and therefore the nutritional needs of preschool children were unmet. The author notes that relatively inexpensive interventions can have large payoffs in meeting the nutritional needs of this important population.

Menke EM. **The mental health of homeless school-age children.** J Child Adolesc Psychiatr Nurs, 11(3):87-98, July-Sept. 1998.

PROBLEM: The mental health of homeless school-age children. **METHODS:** A convenience sample of 46 homeless children between the ages of 8 and 12 years completed the Children's Depression Inventory (CDI) and each child's mother completed the Child Behavior Checklist (CBCL). **FINDINGS:** 57% of the children had depressive symptoms and 26% needed additional evaluation for mental health problems. Overall, the scores indicated that gender and ethnicity are not related to the children's mental health. **CONCLUSIONS:** The mental health of homeless children should be assessed, as they may be at risk for mental health problems.

Menke EM, Wagner JD. **A comparative study of homeless, previously homeless, and never homeless school-aged children's health.** Issues Compr Pediatr Nurs, 20(3):153-73, July-Sept 1998.

The purpose of this study was to compare the mental health, physical health, and healthcare practices of homeless, previously homeless, and never homeless poor school-aged children. The study sample was 134 children ranging in age from 8 to 12 years. The children participated in health assessments and completed two psychometric tests: the Children's Depression Inventory (CDI) (Kovacs, 1985) and the Revised Children's Manifest Anxiety Scale (RCMAS) (Reynolds & Richmond, 1985). Their mothers completed the Child Behavior Problem Checklist (CBCL) (Achenbach, 1991) and participated in an interview. The homeless (n=67), previously homeless (n=30), and never homeless children (n=37) were similar in regard to their health assessment findings, reported health problems, healthcare practices, and CBCL scores. The proportions of homeless and previously homeless children with CDI scores in the clinical range were significantly greater than the never homeless poor children. The homeless children had significantly higher anxiety scores than the previously homeless and never homeless children. All groups of children were at risk for physical and mental health problems. The findings suggest that school-aged children who experience homelessness may be at greater risk for depression and anxiety than never homeless poor children.

Riley B, Fryar N, Thornton N. **Homeless on the range: Meeting the needs of homeless families with young children in the rural west.** Zero to Three:31-5, Aug-Sept 1998.

Family BASICS (Building A Supportive, Integrated Community) is a model family support and prevention program that was created in response to the growing number of homeless families in Missoula, Montana. In its six years of operation, this organization has found that these families have very few close or stable ties to family or friends and that social isolation leads to family homelessness, keeping families in crisis. To strengthen families and prevent homelessness, Family BASICS strives to reduce isolation, while respecting independence. This article looks at western Montana's youngest homeless or near-homeless citizens and presents an overview of the economic and housing adversities facing their families. Family BASICS' social support approach to homeless families with young children is described. **AVAILABLE FROM:** National Center for Infants, Toddlers, and Families, 734 15th Street NW, Suite 1000, Washington, DC 20005-1013.

Medical care of children who are homeless or in foster care. *Curr Opin Pediatr*, 10(5):486-90, Oct 1998.

The number of children who are homeless or in foster care has risen dramatically during the past two decades. Poverty, substance abuse, lack of education and employment, and the failure of the social "safety net" to catch all those in need of support and financial assistance are root causes of this increase. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, popularly known as the "welfare reform" act, will likely have a powerful impact on levels of child poverty in the future and place even greater numbers of children at risk for becoming homeless or entering foster care over the next decade. Recent studies provide increased understanding of the health care and educational needs of children who are homeless or in foster care.

Vostanis P, Grattan E, Cumella S. **Mental health problems of homeless children and families: Longitudinal study.** *Brit Med J*, 316(7135):899-902, 1998.

This article examines the mental health needs of homeless children and families before and after re-housing using a longitudinal study. A cross sectional, longitudinal study of 58 re-housed families with 103 children and 21 comparison families with 54 children of low socioeconomic status in stable housing was conducted in Birmingham, England. Results indicated that mental health problems remained significantly higher in re-housed mothers and their children than in the comparison group. Homeless mothers continued to have significantly less social support at follow up. Mothers with a history of abuse and poor social integration were more likely to have children with persistent mental health problems. The authors conclude that local strategies for rapid re-housing into permanent accommodation, effective social support and health care for parents and children, and protection from violence and intimidation should be developed and implemented.

Weinreb L, Goldberg R, Bassuk E, Perloff J. **Determinants of health and service use patterns in homeless and low-income housed children.** *Pediatrics*, 102(3 Pt 1):554-62, Sept 1998.

OBJECTIVE: Previous studies of homeless children have described more health problems and service use than in housed children, but failed to control for potential confounding factors that may differ between these children. This observational study examines the relationship of homelessness and other determinants to health status and service use patterns in 627 homeless and low-income housed children. **METHODS:** Case-control study of 293 homeless and 334 low-income housed children aged 3 months to 17 years and their mothers conducted in Worcester, Massachusetts. Information was collected about mothers' housing history, income, education, emotional distress, and victimization history. Standardized instruments were administered to assess children's health. Health service use questions were adapted from national surveys. Main outcome measures included health status, acute illness morbidity, emergency department and outpatient medical visits. The association of family and environmental determinants, including homelessness, with health status and service use outcomes, were examined. **RESULTS:** Mothers of homeless children were more likely to report their children as being in fair or poor health compared with their housed counterparts. Homeless children were reported to experience a higher number of acute illness symptoms, including fever, ear infection, diarrhea, and asthma. Emergency department and outpatient medical visits were higher among the homeless group. After controlling for potential explanatory factors, homeless children remained more likely to experience fair or poor health status, and a higher frequency of outpatient and emergency department visits. Mothers' emotional distress was independently associated with acute illness symptoms and frequent use of outpatient and emergency department settings. **CONCLUSIONS:** Homelessness is an independent predictor of poor health status and high service use among children. The present findings highlight the importance of preventive interventions and efforts to increase access to primary care among homeless children.

Zima BT, Forness SR, Bussing R, Benjamin B. **Homeless children in emergency shelters: Need for**

prereferral intervention and potential eligibility for special education. Behavioral Disorders, 23(2):98-110, 1998.

This article examines a study whose purpose was to describe the level of need for special education services for probable behavioral disorders, learning disabilities, and mental retardation among school-age homeless children living in shelters. From a county-wide sample of 18 emergency homeless shelters in Los Angeles, 118 homeless parents were interviewed, and 169 children were tested for behavioral disorders, learning disabilities, and mental retardation using standardized screening instruments. Forty-six percent of homeless children screened positive for at least one disability requiring special education services, with behavioral disorders being the most prominent (30%). Procedures to identify early need for special education services should be adapted to accommodate the transiency of school-age children living in homeless shelters.

1997

Bassuk EL, Weinreb L, Dawson R, Perloff JN, Buckner JC. **Determinants of behavior in homeless and low-income housed preschool children.** Pediatrics, 100(1):92-100, 1997.

The purpose of this article is to describe the characteristics of homeless and low-income preschool-aged children, and to identify family and environmental determinants of their behavior. A survey of 77 sheltered homeless and 90 low-income housed mothers in Worcester, Mass., was conducted to describe a sample of 167 preschool children. Both homeless and low-income children experienced significant adversity in their lives, with homeless preschool children facing the most stress. However, differences in behavior were minimal. The authors conclude these findings emphasize the importance of preventative family-oriented interventions that address the needs of preschoolers and their mothers.

Buckner JC, Bassuk EL. **Mental disorders and service utilization among youths from homeless and low-income housed families.** J Am Acad Child Adol Psych, 36(7):890-900, July 1997.

OBJECTIVE: To assess the mental health of homeless and poor housed youths, using the National Institute of Mental Health (NIMH) Diagnostic Interview Schedule for Children (DISC) Version 2.3, and to examine mental health service use. **METHOD:** As part of a comprehensive study of homeless and housed families Worcester, MA, data were collected on 41 homeless and 53 poor housed (never homeless) youths aged 9 to 17 using both the parent and youth versions of the DISC. **RESULTS:** On the basis of the parent version of the DISC, current (6-month) prevalence rates of DSM-III-R disruptive behavior, affective, and anxiety disorders were comparable in homeless and housed youths but higher than rates found among youths in the NIMH-sponsored Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) Study, which used the same diagnostic measure. Approximately 32% of the combined sample of homeless and housed youths had a current mental disorder accompanied by impairment in functioning. Mental health service use in the preceding 6 months among youths who had one or more current disorders and associated impairment ranged from 20% to 35%. A subgroup of youths with one or more current disorders and poor global functioning had never received treatment. **CONCLUSIONS:** This sample of homeless and housed youths was found to have high rates of current mental disorders. Use of mental health services by children with mental health needs was low, particularly for youths with poor overall functioning.

Bureau of Primary Health Care. **The Children's Health Insurance Program and homeless children:**

Considerations for the states (Draft). Bethesda, MD: Health Care for the Homeless Program, DSP, BPHC, HRSA, DHHS, 1997.

This discussion paper looks at the Children's Health Insurance Program (CHIP), which offers opportunities for States to extend health insurance coverage to homeless children, and to improve homeless children's access to health care services. States may use up to 10% of their CHIP funds to expand existing community-based health delivery systems and develop outreach activities to link the most difficult-to-reach children with needed care. This way, states can reduce barriers to care and enhance those existing systems of care that are most appropriate for homeless children. AVAILABLE FROM: Health Care for the Homeless Program. Phone: (301) 594-4430.

Rabideau JMP, Toro PA. **Social and environmental predictors of adjustment in homeless children.** In Smith EM and Ferrari JR (eds.), *Diversity Within the Homeless Population: Implications for Intervention.* MBinghamton, NY: The Haworth Press, 1997.

This chapter describes a study that examined social and environmental predictors of adjustment in homeless children using a sample of 32 mothers and 68 children who were referred to the Demonstration Employment Project-Training and Housing (DEPTH), which was based in Buffalo, NY. Based on mother and child interviews, socio-environmental and maternal characteristics and child adjustment measures were taken. Results indicated that homeless children experienced more behavior problems and depression as compared to the community norm. Factors such as the extent of domestic violence in the mother's recent relationships and the level of parenting hassles were related to this situation.

Vostanis P, Grattan E, Cumella S, Winchester C. **Psychosocial functioning of homeless children.** J Amer Acad Child Adol Psych, 36(7):881-9, 1997.

The objective of this study was to investigate the psychosocial characteristics of homeless children and their parents. Homeless families were assessed within two weeks of admission to seven hostels and were compared with a group of housed families matched for socioeconomic status. Homeless families primarily consisted of single mothers and an average of two children, who had become homeless because of domestic violence or violence from neighbors. Findings concluded that homeless mothers and children have high rates of psychosocial morbidity, which are related to multiple risk factors and chronic adversities. Their complex needs should be best met by specialized and coordinated health, social, and educational services.

Zima BT, Bussing R, Forness SR, Benjamin B. **Sheltered homeless children: Their eligibility and unmet need for special education evaluations.** Am J Public Health, 87(2):236-40, February 1997.

OBJECTIVES: This study described the proportion of sheltered homeless children in Los Angeles, California, who were eligible for special education evaluations because of a probable behavioral disorder, learning disability, or mental retardation, and to explore their level of unmet need for special education services. **METHODS:** This was a cross-sectional study of 118 parents and 169 children aged 6 through 12 years living in 18 emergency homeless shelters in Los Angeles Co., California. Parents and children were interviewed with standardized mental health and academic skill measures in English and Spanish. **RESULTS:** Almost half (45%) of the children met criteria for a special education evaluation, yet less than one quarter (22%) had ever received special education testing or placement. The main point of contact for children with behavioral disorders and learning problems was the general health care sector. **CONCLUSIONS:** School-aged sheltered homeless children have a high level of unmet need for special education evaluations, the first step toward

accessing special education programs. Interventions for homeless children should include integration of services across special education, general health care, and housing service sectors.

1996

Committee on Community Health Services. **Health needs of homeless children and families.** Pediatrics, 98(4):789-91, 1996.

This article attempts to substantiate the existence of homelessness in virtually every community, illustrate the pervasive health and psychosocial problems facing the growing population of children who are homeless, and encourage practitioners to include homeless children in their health care delivery practices, social services, and advocacy efforts. The recommendations will guide practitioners in taking actions to diminish the severe negative impact that living in temporary shelters has on the health and well being of developing children. In this statement the American Academy of Pediatrics reaffirms its stance that homeless children need permanent dwellings in order to thrive.

Health needs of homeless children and families. American Academy of Pediatrics, Committee on Community Health Services. Pediatrics, 98(4 Pt 1):789-91, Oct 1996.

The intent of this statement is to substantiate the existence of homelessness in virtually every community, illustrate the pervasive health and psychosocial problems facing children who are homeless, and encourage practitioners to include homeless children in health care delivery practices, social services, and advocacy efforts. The recommendations guide practitioners in taking actions to diminish the severe negative impact that living in temporary shelters has on the health and well-being of children. The American Academy of Pediatrics reaffirms its stance that homeless children need permanent dwellings in order to thrive.

Lewit EM, Baker LS. **Child indicators: Homeless families and children.** The Fut Child, 6(2):146-58, 1996.

This article focuses on available data on homeless families and children. The authors review different definitions of homelessness and the most common methods used to estimate the size of the homeless population. Data on subgroups of homeless children and adolescents in the United States is examined, and the duration of homelessness for families with children that use shelter service is discussed. Also, trends in the numbers of families who are at risk of losing their housing are examined.

Shane PG. **What about America's homeless children?** Thousand Oaks, CA: Sage Publications, 1996.

This book examines the social factors that create homeless situations for children and the personal and educational problems that can result from them. The health risks - including unsanitary living conditions, poor nutrition, physical assault, and lack of access to health care - are explored. Also presented are ethnographic case studies of children in urban shelters, families in a shelter program, and people who "survived" a homeless youth experience. The history of programs, both governmental and nongovernmental, and policies for homeless youth are also examined. The book concludes with recommendations for policies and programs that can prevent homelessness for children. AVAILABLE FROM: Sage Publications, Inc., 2455 Teller Road, Thousand Oaks, CA 91320, (805) 499-0721. (COST: \$26.00) (ISBN 0-8039-4983-9)

United States Department of Health and Human Services. **Linking community health centers with schools**

serving low income children: An idea book. Washington, DC: U.S. Dept. of Health and Human Services, Bureau of Primary Health, June 1996.

This guide is designed to promote linkages between schools and community and migrant health centers by providing practical information from school health and education professionals who have collaborated to meet the challenges of supporting children to be ready to learn and achieve their full potential. It includes initial overview, "nuts and bolts" of program design and implementation (e.g., parent involvement, needs assessment, funding and reimbursement, staffing issues, confidentiality, and evaluation), sample forms, contact information, and selected site profiles. Presents linkage models that have worked despite obstacles. AVAILABLE FROM: National Clearinghouse for Primary Care Information (800)400-BPHC (PC363).

Zima BT, Wells KB, Benjamin B, Duan N. **Mental health problems among homeless mothers: relationship to service use and child mental health problems.** Arch Gen Psychiatry, 53(4):332-8, April 1996.

BACKGROUND: This study describes the prevalence of psychological distress and probable lifetime mental disorders among homeless mothers, their use of services, and the relationship between maternal and child mental health problems. **METHOD:** The study involved a cross-sectional assessment of 110 mothers and 157 children living in homeless shelters in Los Angeles County. **RESULTS:** The majority (72%) of sheltered homeless mothers reported high current psychological distress or symptoms of a probable lifetime major mental illness or substance abuse. However, few mothers (15%) in need of services received mental health care, and the main point of contact for those with a mental health problem was the general medical sector. Mothers with a probable mental disorder were also significantly more likely to have children with either depression or behavior problems. **CONCLUSIONS:** Homeless mothers have a high level of unmet need for mental health services. The relationship between maternal and child problems underscores the need for homeless family interventions that promote access to psychiatric care for both generations.

1995

Riemer J, Van Cleve L, Galbraith M. **Barriers to well childcare for homeless children under age thirteen** Pub Health Nurs, 12(1):61-6, 1995.

This descriptive study was designed to identify perceived barriers to care and to determine if there was a relationship between perceived barriers and duration of the family's homelessness. Using an investigator-modified version of Melnyk's Barriers Scale and a demographic measure, a convenience sample of homeless families (n=53) from three transitional shelters was surveyed via questionnaire. Four barriers were cited most frequently by the respondents as greatly affecting their children's care. These barriers involved provider-selection difficulties, waiting for well child appointments, waiting during well child appointments, and the high cost of transportation and/or parking. No relationship was found between duration of homelessness and perceived barriers. These findings confirm the reality of potential barriers to care suggested by earlier studies. Innovative forms of health care delivery that may reduce or eliminate these barriers include the use of shelter-site clinics, mobile units, and the use of a nurse liaison between family shelters and hospital-based clinics.

Burg MA. **Health problems of sheltered homeless women and their dependent children.** Health and Social Work, 19(2):125-131, 1994.

This article introduces an analytic framework that classifies the types of health problems that emerge among homeless women and their dependent children residing in the shelter system. The framework covers three categories of health problems: illnesses coincident with homelessness; those exacerbated by limited health care access; and those associated with the psychosocial burdens of homelessness. The author also discusses the failures of the current structure of health care reimbursement and the deficiencies of service delivery to homeless families. The author contends that the analytic framework conceptualizes the interrelationship between health and poverty and can be used as an instrument for informed social work intervention, advocacy, training, and research activities.

McNamee MJ, Bartek JK, Lynes D. **Health problems of sheltered homeless children using mobile health services.** Issues Compr Pediatr Nurs, 17(4):233-42, Oct 1994.

Homeless families are an increasing problem in the United States, with children representing 34% of the total homeless population. This retrospective study describes the demographic characteristics and health care problems and concerns of sheltered homeless children who used the services of a mobile health van over a 1-year period in a mid-western metropolitan area. The patterns of utilization, medications prescribed, and referrals are also described. Medical records of 175 sheltered homeless children who sought care from a mobile health van were reviewed. Forty-eight percent of the children were female; 52% were male. The majority were under six years of age (15% infants, 22% toddlers, 22% preschoolers, 23% school-age children, and 18% adolescents). The major reasons for seeking health care, the primary diagnoses, and treatments are presented. Recommendations for using a mobile van to provide efficient, quality health care for this population are discussed.

Redlener I, Redlener K. **System-based mobile primary pediatric care for homeless children: The anatomy of a working program.** Bulletin of the New York Academy of Medicine, 49-57, Summer 1994.

This article describes the New York Children's Health Project (NYCHP) of Montefiore Medical Center-Albert Einstein College of Medicine in Bronx, NY. The project has been providing comprehensive health services to homeless and medically underserved children since 1987. Fully equipped mobile child health offices have been the principal mechanism for bringing pediatrician-led teams to locations that are convenient and accessible to underserved children and their families.

Redlener I, Karich KM. **The homeless child health care inventory: Assessing the efficacy of linkages to primary care.** Bull NY Acad Med, 71(1):37-48, 1994.

Each year, the New York City homeless family shelter system provides transitional housing for nearly 20,000 homeless children. While the health care needs of these children are substantial, there is currently no system-wide mechanism for ensuring that they have access to appropriate medical care. This report analyzes information from the Homeless Child Health Care Inventory, a survey conducted by Montefiore Medical Center's Division of Community Pediatrics, to examine the adequacy of health care resources available to the homeless children in New York City. Results showed that available health care resources varied considerably

throughout the shelter system and that nearly 50% of homeless children in New York City did not have access to appropriate medical care.

Zima BT, Wells KB, Freeman HE. **Emotional and behavioral problems and severe academic delays among sheltered homeless children in Los Angeles County.** Am J Public Health, 84(2):260-4, Feb 1994.

OBJECTIVES: Few studies have estimated the extent of specific emotional, behavioral, and academic problems among sheltered homeless children. The objectives of this study were to describe such problems, identify those children with the problems, and evaluate the relationship between child problems and use of physical and mental health services. **METHODS.** From February through May 1991, 169 school-age children and their parents living in 18 emergency homeless family shelters in Los Angeles County were interviewed. To evaluate the answers, interviewers used standardized measures of depression, behavioral problems, receptive vocabulary, and reading. **RESULTS:** The vast majority (78%) of homeless children suffered from depression, a behavioral problem, or severe academic delay. Among children having a problem, only one third of the parents were aware of any problem, and few of those children (15%) had ever received mental health care or special education. **CONCLUSIONS:** Almost all school-age sheltered homeless children in Los Angeles County have symptoms of depression, a behavioral problem, or academic delay severe enough to merit a clinical evaluation, yet few receive specific care. Programs targeted at sheltered homeless school-age children are needed to close this gap.

1993

Eddins E. **Characteristics, health status and service needs of sheltered homeless families.** ABNF J, 4(2): 40-4, 1993.

To describe the characteristics, health status, needs and utilization of health services of sheltered homeless families, we performed a population-based, cross-sectional survey of a probability sample of 103 parents and 260 children in the District of Columbia. Data from parents were gathered by a semi-structured interview and from children by standard validated instruments. The parents were single (72%), women (95%), poorly educated (54% less than high school), unemployed (85%), on AFDC (91%), and had minimum support persons (30% not any), medical (27%), psychiatric (46%), and substance abuse problems (45%). Sixty one percent of the children under five had at least one developmental lag and 44% had two or more lags; 60% of the children over five required further medical and psychiatric evaluation and 55% were performing below average in school.

Fierman AH, Dreyer BP, Acker PJ, Legano L. **Status of immunization and iron nutrition in New York City homeless children.** Clin Pediatr (Phila), 32(3):151-5, March 1993. Comment in: Clin Pediatr (Phila), 32(3):163-6, March 1993.

A retrospective review of the hospital records of New York City children aged 6 months through 6 years showed that 63 homeless children had a higher rate of immunization delay than an age- and sex-stratified sample of 63 domiciled children living at the same federal poverty level. In a logistic regression model, this difference persisted after controlling for sex, age, ethnicity, presence of chronic illness, and reason for referral. In a 6-month- to 2-year-old subgroup, homeless and domiciled children had equal rates of anemia, but homeless children were more likely to have elevated erythrocyte protoporphyrin (EP) levels consistent with iron deficiency. This difference, too, persisted after controlling for the same confounding factors.

Elevated EP levels and immunization delay were likely to coexist in the homeless children. The higher rate of immunization delay is compatible with the occurrence of measles outbreaks in some New York City shelters. The higher rates of iron deficiency may reflect overall poor nutrition. All these findings have significant implications for the design of health-care programs for homeless children.

Kemsley M, Hunter JK. **Homeless children and families: Clinical and research issues.** *Issues Compr Ped Nurs*, 16(2):99-108, April-June 1993.

Data from the records of the Nursing Center for the Homeless of the School of Nursing at the State University of New York at Buffalo is drawn upon to analyze health services provided from 1989-1991 to homeless children and families (n=470). Results document that 56% were covered by health insurance and had received age-appropriate preventive health care. Of the children seen, 50% were considered well and 30% were diagnosed as having upper respiratory infections, skin problems, and/or gastrointestinal disorders. Health teaching for parents was the most frequent nursing intervention (50%), while 20% of the children were referred to community agencies. Factors that impeded data collection and provision of health services for the homeless population are discussed, including suggestions for treatment and research approaches.

Masten AS, Miliotis D, Graham-Bermann SA, Ramirez M, Neemann J. **Children in homeless families: Risks to mental health and development.** *J Consult Clin Psychol*, 61(2):335-43, April 1993.

This study examined the psychological adjustment of 159 homeless children in comparison with a sample of 62 low-income children living at home. In each group, ages ranged from 8 to 17 years. As expected, homeless children were found to have greater recent stress exposure than housed poor children, as well as more disrupted schooling and friendships. Child behavior problems were above normative levels for homeless children, particularly for antisocial behavior. Across the two samples, however, behavior problems were more related to parental distress, cumulative risk status, and recent adversity than to housing status or income. Results suggest that homeless children share many of the risks and problems of other American children being reared in poverty.

Primas PJ, Baca G, Petticrew DA, Moffett C, White JK, Primas HR, Norman S. **A multi-dimensional assessment of the health needs of homeless infants and pre-school children in Phoenix.** *J Soc Dist Homel*, 2(1):61-72, 1993.

This study identified the health needs of a selected group of homeless children in Phoenix, Arizona in order to develop needed services. A non-random sample of 60 infants and pre-school children were given on-site physical, dental, developmental, behavioral, and nutritional assessments. Fifty-eight of the 60 children screened needed further evaluation, treatment, or follow-up services. The most significant problems included low hematocrit readings, inadequate immunizations, and untreated medical and dental problems specific to this age group. Also identified were developmental delays and potential behavior problems.